

# Recovery Plan Action Status

Plan Name: Recovery Plan For Higo Chumbo

Plan Status: Final

Plan Date: 12-Nov-96

Lead Agency: USFWS

Lead Office: Caribbean Ecological Services Field Office

(787)

851-7297 )

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Higo Chumbo (Harrisia portoricensis)	1	1	Develop and implement agreement between Service and DNER for protection of higo chumbo on Mona and Monitor	Ongoing Current	Prior to FY 1995	FY 2012	U.S. Fish and Wildlife Service, Ecological Services Division, Puerto Rico Department of Natural and Environmental Resources	Management	Internal Field Assistance	No cost anticipated
Higo Chumbo (Harrisia portoricensis)	2	10	Assess seed production and dispersal	Partially Complete	FY 1995 - FY 1999	FY 2012	U.S. Fish and Wildlife Service, Ecological Services Division, Universities, Puerto Rico Department of Natural and Environmental Resources, Caribbean islands National Wildlife Refuge, FWS	Research	Contract, Graduate Student	The University of Puerto Rico at Rio Piedras has continue assassing the germination requirements of the species under natural conditions.
Higo Chumbo (Harrisia portoricensis)	2	11	Evaluate seed viability and germination requirements	Partially Complete	FY 1995 - FY 1999	FY 2012	U.S. Fish and Wildlife Service, Ecological Services Division, Universities, Puerto Rico Department of Natural and Environmental Resources, Caribbean islands National Wildlife Refuge, FWS	Research	Contract, Graduate Student	The UPRRP is conducting experiments on seed germination and requirements under natural conditions.
Higo Chumbo (Harrisia portoricensis)	2	12	Assess methods of propagation	Ongoing Not Current	FY 1995 - FY 1999	FY 2012	U.S. Fish and Wildlife Service, Ecological Services Division, Botanical Gardens, Universities, Puerto Rico Department of Natural and Environmental Resources, Caribbean islands National Wildlife Refuge, FWS	Research: Propagation	Contract, Graduate Student	The UPRRP is conducting germination experiments on the species.

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Higo Chumbo (Harrisia portoricensis)	2	13	Develop artificial propagation program	Ongoing Not Current	FY 2000 - FY 2004	FY 2012	U.S. Fish and Wildlife Service, Ecological Services Division, Botanical Gardens, Universities, Puerto Rico Department of Natural and Environmental Resources, Caribbean islands National Wildlife Refuge, FWS	Management: Propagation	Contract, Graduate Student, Internal Technical Assistance	The species is currently been propagated for research and conservation purposes by the Department of Natural and Environmental Resources of Puerto Rico and UPRRP.
Higo Chumbo (Harrisia portoricensis)	2	14	Select sites and assess habitat suitability	Ongoing Current	FY 2009	FY 2012	U.S. Fish and Wildlife Service, Ecological Services Division, Universities, Puerto Rico Department of Natural and Environmental Resources, Caribbean islands National Wildlife Refuge, FWS	Management: Propagation, Management: Reintroduction	Contract, Graduate Student, Internal Technical Assistance	Task duration: 2-4 years The Service have selected the area of the Cabo Rojo Lighthouse to establish an experimental population.
Higo Chumbo (Harrisia portoricensis)	2	15	Assure site protection	Complete	FY 2009	FY 2012	U.S. Fish and Wildlife Service, Ecological Services Division, Puerto Rico Department of Natural and Environmental Resources	Acquisition: Easement	Internal Technical Assistance	
Higo Chumbo (Harrisia portoricensis)	2	16	Introduce and monitor plants	Ongoing Current	FY 2009	FY 2012	U.S. Fish and Wildlife Service, Ecological Services Division, Puerto Rico Department of Natural and Environmental Resources, Caribbean islands National Wildlife Refuge, FWS	Management: Reintroduction	Contract, Graduate Student, Internal Technical Assistance	Task duration: 2-4 years The Service is currently monitoring a population established in Cabo Rojo, Puerto Rico.
Higo Chumbo (Harrisia portoricensis)	3	17	Determine number of individuals and populations to ensure stability and self-perpetuation	Ongoing Current	FY 2008	FY 2012	U.S. Fish and Wildlife Service, Ecological Services Division, Puerto Rico Department of Natural and Environmental Resources, Caribbean islands National Wildlife Refuge, FWS	Other	Internal Technical Assistance	The Service is using an experimental population at Cabo Rojo to determine the minimum number of individuals per population.

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Higo Chumbo (Harrisia portoricensis)	3	18	determine what additional actions are needed to achieve recovery objectives	Ongoing Current	FY 2008	FY 2011	U.S. Fish and Wildlife Service, Ecological Services Division, Puerto Rico Department of Natural and Environmental Resources, Caribbean islands National Wildlife Refuge, FWS	Other	Internal Technical Assistance	
Higo Chumbo (Harrisia portoricensis)	1	2	Develop management plan which provides for the protection of higo chumbo on the island of Desecheo	Ongoing Current	Prior to FY 1995	FY 2012	U.S. Fish and Wildlife Service, Ecological Services Division, Puerto Rico Department of Natural and Environmental Resources, Caribbean islands National Wildlife Refuge, FWS	Management	Internal Field Assistance	No cost anticipated This species is been included as part of the CCP for the Desecheo Island NWR.
Higo Chumbo (Harrisia portoricensis)	1	3	Monitor known populations	Ongoing Current	FY 1995 - FY 1999	FY 2012	U.S. Fish and Wildlife Service, Ecological Services Division, Universities, Puerto Rico Department of Natural and Environmental Resources, Caribbean islands National Wildlife Refuge, FWS , USFWS Regional Office 4	Research	Contract, Graduate Student	The Service and the UPRRP has continued monitoring the populations at Mona, Monito and Desecheo. Need to adress the status of individuals on Caja de Muerto.
Higo Chumbo (Harrisia portoricensis)	1	4	Enforce existing Commonwealth and Federal endangered species regulations	Ongoing Current	Prior to FY 1995	FY 2011	U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Fish and Wildlife Service, Law Enforcement Division, Puerto Rico Department of Natural and Environmental Resources	Other: Law Enforcement	Internal Technical Assistance	25 percent of DNER ranger
Higo Chumbo (Harrisia portoricensis)	2	5	Provide public information on higo chumbo	Ongoing Current	FY 1995 - FY 1999	FY 2012	U.S. Fish and Wildlife Service, Ecological Services Division, Puerto Rico Department of Natural and Environmental Resources	Other: Information and Education	Internal Technical Assistance	Task duration: 2-4 years

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Higo Chumbo (Harrisia portoricensis)	2	6	Identify and inventory potential sites	Ongoing Current	FY 2000 - FY 2004	FY 2012	U.S. Fish and Wildlife Service, Ecological Services Division, Puerto Rico Department of Natural and Environmental Resources	Management: Propagation	Contract, Graduate Student, Internal Technical Assistance	Task duration: 2-4 years
Higo Chumbo (Harrisia portoricensis)	2	7	Characterize sites to determine their suitability as future recovery sites	Ongoing Current	FY 2000 - FY 2004	FY 2012	U.S. Fish and Wildlife Service, Ecological Services Division, Universities, Puerto Rico Department of Natural and Environmental Resources, Caribbean islands National Wildlife Refuge, FWS	Management: Propagation	Contract, Graduate Student, Internal Technical Assistance	Task duration: 2-4 years
Higo Chumbo (Harrisia portoricensis)	2	8	Define habitat requirements	Partially Complete	FY 2009	FY 2012	U.S. Fish and Wildlife Service, Ecological Services Division, Universities, Puerto Rico Department of Natural and Environmental Resources	Research: Habitat Requirements	Contract, Graduate Student, Internal Technical Assistance	Task duration: 2-4 years The Univ of Puerto Rico at Rio Piedras conducted a research that included habitat requirements needed for the establishment of seedlings under natural conditions and the effect of competition with exotic grasses. This research is ongoing!
Higo Chumbo (Harrisia portoricensis)	2	9	Assess periodicity of flowering	Partially Complete	FY 1995 - FY 1999	FY 2011	U.S. Fish and Wildlife Service, Ecological Services Division, Universities, Puerto Rico Department of Natural and Environmental Resources, Caribbean islands National Wildlife Refuge, FWS	Research	Contract, Graduate Student, Internal Technical Assistance	6K/yr includes 321, 322, 323, and 324. Task duration: 2-4 years.  The Univ of Puerto Rico at Rio Piedras is currently studying the reproductive biology of the species.